

## How to Use the Maryland Statewide Imagery Download Tool

Training



### What is the MD iMAP Statewide Imagery Download Tool?

The Maryland State Imagery Download Tool is a web application that enables users to perform custom downloads from imagery collections. The tool provides a number of different output projections and file types.

### What Imagery is Available from MD iMAP?

MD iMAP hosts a variety of imagery collections that have been acquired over the years since the creation of the Maryland Statewide Imagery Program. Imagery collections include:

Maryland imagery is available as map and image services for the most current year on the MD iMAP Public Server and previous years on the MD iMAP Imagery Server.

For those users who require the raw images themselves, we offer the imagery collections for download as part of the **Maryland Statewide Imagery Download Tool**, which can be found at:

<http://imagery.geodata.md.gov:8080/ExpressZip>

**Note:** If you cannot access the application, check with your organization's IT support to determine if the firewall is blocking port 8080. Access through this port is required to view the Download Tool.

SIX INCH IMAGERY	
2014	Western Shore
2013	Eastern Shore
2013	Howard County
2011	Western Shore
2010	Eastern Shore
THREE INCH IMAGERY	
2014	Annapolis
2014	Rockville & Gaithersburg
2013	Easton
NAIP IMAGERY (National Agriculture Imagery Program)	
2013	Statewide
STORM IMAGERY	
2012	Hurricane Sandy
2002	La Plata Tornado

## Using the Tool

Obtaining imagery through the Maryland Statewide Imagery Download Tool is a four-step process:

**STEP 1: Select Layers – Display, Explore and Select Layers for Download**

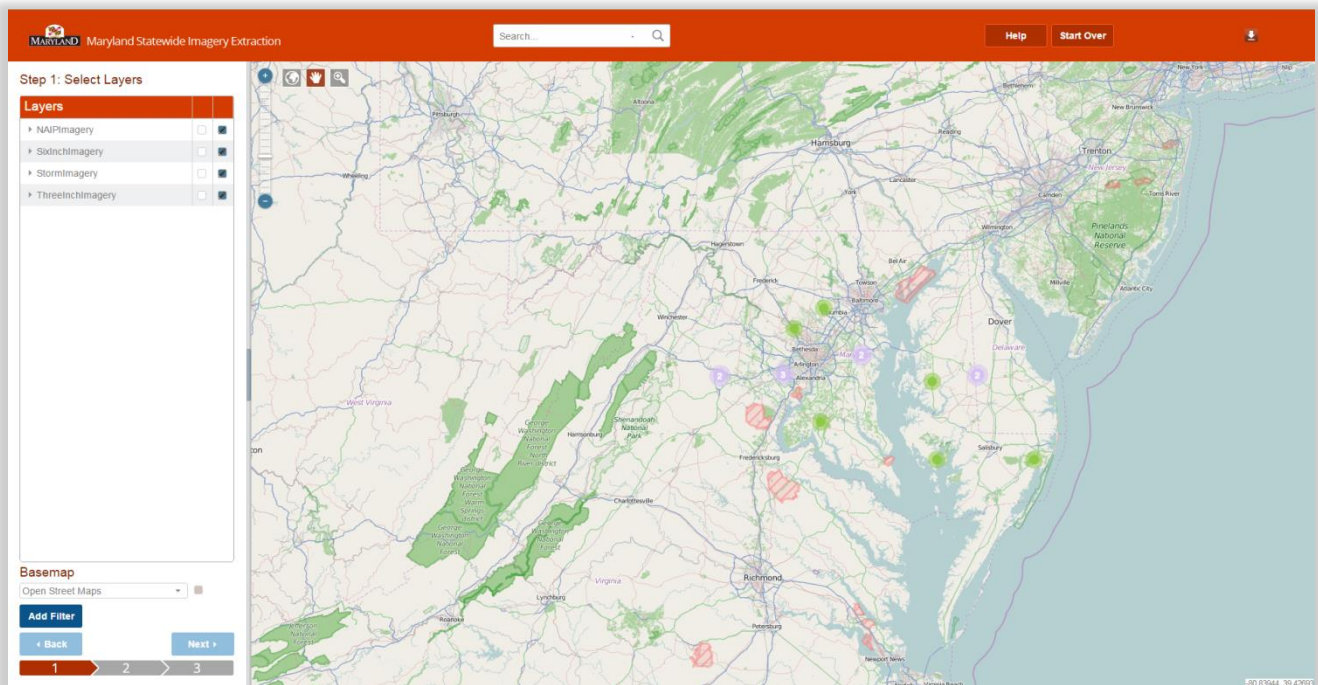
**STEP 2: Select Export Region – Define Area of Interest and Select a Projection for Download**

**STEP 3: Configure Export Options – Set Output Parameters**

**STEP 4: Access Downloaded Imagery – Receive Notification and Retrieve Completed Jobs**

The following instructions provide details on the available functionality and guidelines on how to get the most out of using the tool.

### STEP 1: Select Layers – Display, Explore and Select Layers for Download



**Layers Panel:** The layers panel displays the imagery available for download. Imagery is organized by collection group with individual imagery layers under each group. Layers panel tools are used to display the available imagery layers.

- a. **Explore Available Datasets:** Click on the collection group dropdown icon, to the left of the collection group name, to view the individual imagery layers.

Layers		
▶ NAIPImagery	<input type="checkbox"/>	
▼ SixInchImagery	<input type="checkbox"/>	
EasternShore2010	<input type="checkbox"/>	
WesternShore2011	<input type="checkbox"/>	
EasternShore2013	<input type="checkbox"/>	
Howard2013	<input type="checkbox"/>	
WesternShore2014	<input type="checkbox"/>	
▶ StormImagery	<input type="checkbox"/>	
▶ ThreeInchImagery	<input type="checkbox"/>	

- b. **Turn On/Off Imagery:** Click the pencil icon to turn on or off each individual imagery layer in the map. When a layer is on, the pencil icon will appear as a red X.

Layers		
▶ NAIPImagery	<input type="checkbox"/>	
▼ SixInchImagery	<input type="checkbox"/>	
EasternShore2010	<input type="checkbox"/>	
WesternShore2011	<input type="checkbox"/>	
EasternShore2013	<input type="checkbox"/>	
Howard2013	<input type="checkbox"/>	
WesternShore2014	<input type="checkbox"/>	
▶ StormImagery	<input type="checkbox"/>	
▶ ThreeInchImagery	<input type="checkbox"/>	

- c. **Identify Available Projections:** Hover over a collection group name or individual imagery layer name to view the projections available for download.

Layers		
▶ NAIPImagery	<input type="checkbox"/>	
▼ SixInchImagery	<input type="checkbox"/>	
EasternShore2010	<input type="checkbox"/>	
WesternShore2011	<input type="checkbox"/>	
EasternShore2013	<input type="checkbox"/>	
Howard2013	<input type="checkbox"/>	
WesternShore2014	<input type="checkbox"/>	
▶ StormImagery	<input type="checkbox"/>	
▶ ThreeInchImagery	<input type="checkbox"/>	

Click to view layer boundary. Right-click for options.

**EasternShore2010**

- EPSG:4326
- EPSG:2248
- EPSG:26985
- EPSG:3857

- d. **Access Quick Functions:** Right click on any individual imagery layer to Zoom To, Export All, Export None, Select All or Clear Selection

Layers		
▶ NAIPImagery	<input type="checkbox"/>	
▼ SixInchImagery	<input type="checkbox"/>	
EasternShore2010	<input type="checkbox"/>	
WesternShore2011	<input type="checkbox"/>	
EasternShore2013	<input type="checkbox"/>	
Howard2013	<input type="checkbox"/>	
WesternShore2014	<input type="checkbox"/>	
▶ StormImagery	<input type="checkbox"/>	
▶ ThreeInchImagery	<input type="checkbox"/>	

Zoom to

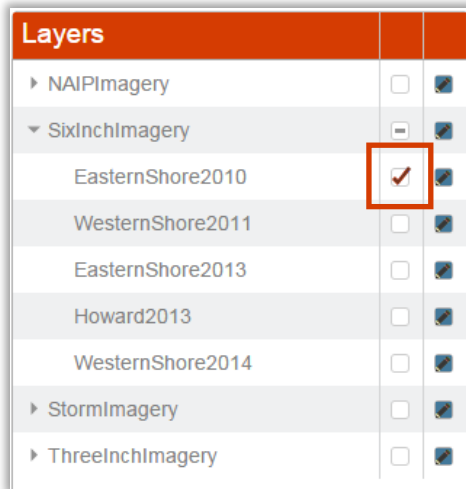
Export all

Export none

Select All

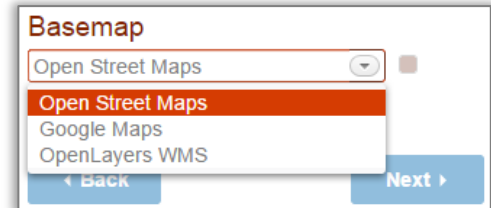
Clear selection

- e. **Select Layer for Download:** Click on the blank check box to select a layer for download. Once clicked, a check box will appear in the box.

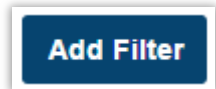


**Note:** Only one layer can be downloaded at a time. If multiple layers are checked for download, the top-most layer in the display will be the one downloaded.

**Basemap Dropdown:** The basemap dropdown switches the underlying basemap from a select group of basemaps. Use the dropdown to select from the available basemaps, which are: Open Street Map, Google Maps and Open Layers WMS.



**Add Filter Button:** The add filter button searches on imagery related keywords.



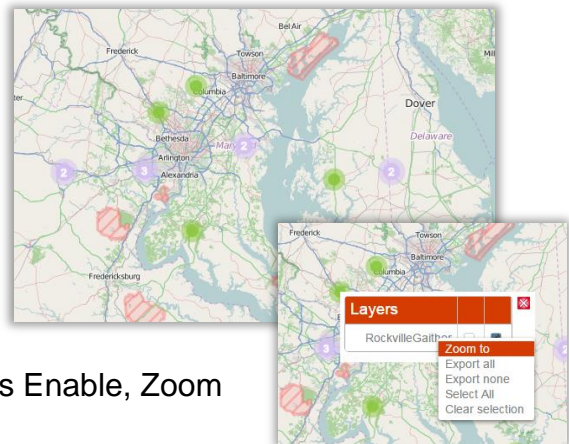
**Note:** This tool is not currently applicable.

**Step Navigator Buttons:** The step navigator buttons allow for moving back and forth within the imagery download steps.



**Map:** The map displays an initial basemap, the number of imagery datasets available in an area and the actual imagery indicated as turned on in the layers panel.

**Collection Group:** The purple dots with numbers indicate that a specific number of collection groups are available for that region. The green dots indicate the geographic center of an individual imagery layer. Left click on any of these dots to access Enable, Zoom and Download functions on those collections.



**Navigation Tools:** The navigation tools provide basic pan and zoom functionality.

a. **Fixed Zoom:** Zooms in and out at regular intervals

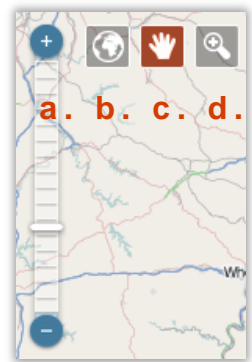
b. **Global Zoom:** Zooms out to the maximum extent

**Note:** Using this will zoom to the entire globe, not the extent of Maryland

c. **Pan Tool:** Move in any direction at the same scale

d. **Zoom to Extent Tool:** Zoom in to a defined extent by drawing a box.

**Note:** There is no zoom out function with this tool



**Search Tool:** The location search tool is used to enter an address or location and zoom directly to that location.

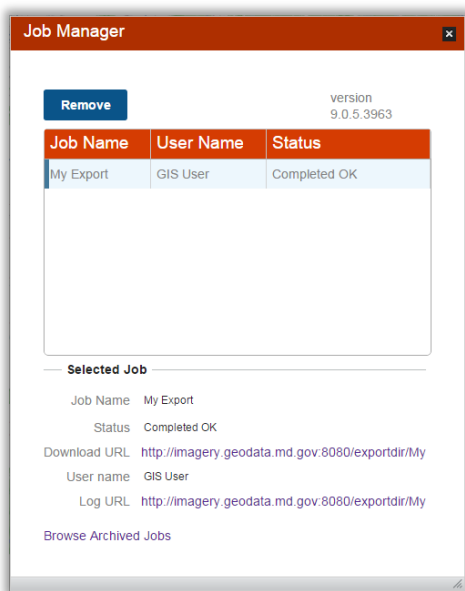


**Note:** The search is powered by Open Street Map, not the Maryland Composite Locator.

**Help Button:** The help button provides quick access to application specific help documents.

**Start Over Button:** The start over button erases all selected options and starts a new search and selection session.

**Job Manager Button:** The job manager button opens the Job Manager panel. The panel displays the status of download requests and supplies a link to the download once complete.



Click **Next** to move to **STEP 2** of the process.

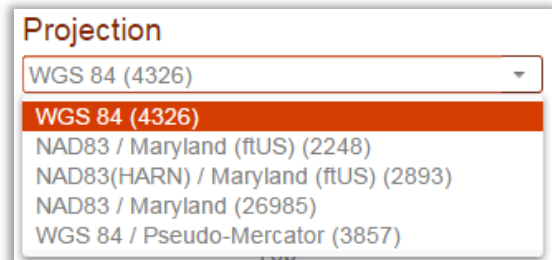


## STEP 2: Select Export Region – Define Area of Interest and Select a Projection for Download



**Layers Panel:** The layers panel displays the imagery layer selected. Layers panel tools are used to define an area of interest for download.

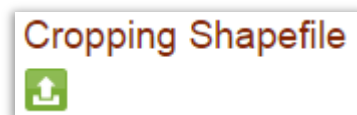
**Projection Dropdown:** The projection dropdown assigns the projection to be used for the download. The application will automatically transform and re-project the imagery and output files into the projection selected.



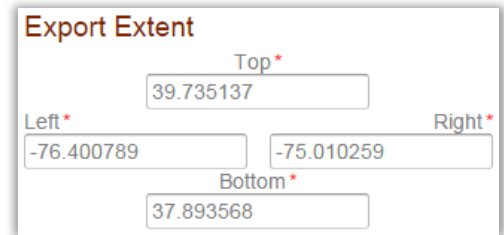
**Note:** The values in parentheses are EPSG values, a coordinate system identified by the European Petroleum Survey Group.

**Cropping Shapefile Button:** The cropping shapefile button opens a Windows Explorer. Use the Windows Explorer to find and select the shapefile to define the area of interest for download.

**Note:** For best results, do not upload a .zip file containing a shapefile, select all components of the shapefile and submit only valid shapefiles.



**Export Extent Tool:** The export extent tool is used to enter a specific set of bounding box coordinates to define as the area of interest for download.



The 'Export Extent' dialog box contains four input fields for bounding box coordinates. The 'Top\*' field is at the top with the value 39.735137. The 'Bottom\*' field is at the bottom with the value 37.893568. The 'Left\*' field is on the left with the value -76.400789. The 'Right\*' field is on the right with the value -75.010259.

**Polygon Selection Tool:** The polygon selection tool draws a unique rectangle over the imagery to define the area interest for download. Click and drag the mouse on the map to complete the process.



**Polygon Adjustment Tool:** The polygon adjustment tool moves or resizes the created polygon selection.



Click [Next >](#) to move the **STEP 3** of the process.

### STEP 3: Configure Export Options – Set Output Parameters

The screenshot shows the 'Step 3: Configure Export Options' interface. On the left, there's a sidebar with 'Job details' and 'Format options' sections. The 'Job details' section includes fields for 'Job name', 'User name', and 'Email address', along with an 'Export summary' showing 'Number of tiles: 1' and 'Disk usage estimate: 292 KB'. The 'Format options' section has buttons for 'Back' and 'Submit'. The main area displays a map with a selected rectangular area.

**Job Details Panel:** The job details panel provides the ability to enter information specific to identify the job later through the Job Manager window. Through this panel, setup the application to send out an email notification once the job is complete. An export summary indicates the number of tiles that will be generated and how large the file will be.

**Note:** The provided email address will receive an email from [ExpressZip@imagery.geodata.md.gov](mailto:ExpressZip@imagery.geodata.md.gov), with "Job <Defined Job Name> has finished processing" in the subject line. A link to the download will be included in the body of the email.

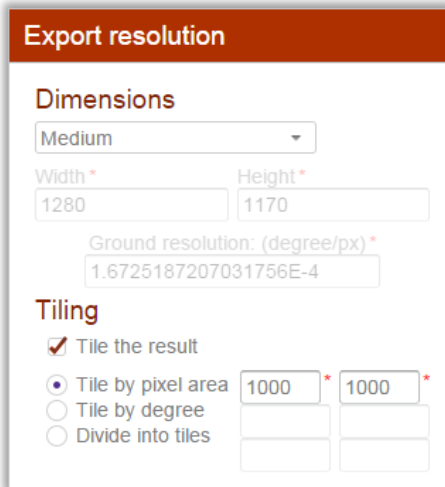
This close-up shows the 'Job details' panel. It includes input fields for 'Job name' (containing 'My Export'), 'User name' (containing 'GIS User'), and 'Email address' (containing 'gisuser@gis.com'). Below these is an 'Export summary' section showing 'Number of tiles: 1' and 'Disk usage estimate: 292 KB'.

**Format Options Panel:** The format options panel provides options for the tile output format and packaging for the download.


Two side-by-side screenshots of the 'Format options' panel. The left screenshot shows the 'Tile output format' dropdown menu with options: JPEG, PNG, TIFF, GIF, and BMP. The right screenshot shows the 'Packing options' dropdown menu with options: ZIP, TAR, and ZIP.



**Export Resolution Panel:** The export resolution panel allows for more granular control over the individual tiles that are downloaded. Through this panel, define individual tiles by pixel area, total size or number of tiles.

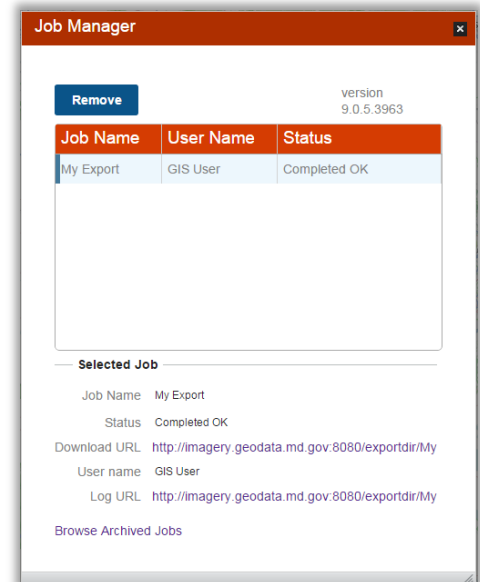


The 'Export resolution' panel has a title bar with the text 'Export resolution'. Below the title bar, there is a section titled 'Dimensions'. It contains a dropdown menu set to 'Medium', two input fields for 'Width' (1280) and 'Height' (1170), and a text field for 'Ground resolution: (degree/px)' with the value '1.6725187207031756E-4'. Below the 'Dimensions' section is a section titled 'Tiling'. It has a checked checkbox 'Tile the result' and three radio button options: 'Tile by pixel area' (selected), 'Tile by degree', and 'Divide into tiles'. To the right of these radio buttons are two input fields, both containing the value '1000'.

Click  to run the download process.

#### STEP 4: Access Downloaded Imagery – Receive Notification and Retrieve Completed Jobs

- a. **Via Job Manager Panel:** Once submitted, each job will appear in the Job Manager Panel with the status of “Submitted”, “Completed OK” or “Error”. If the download has completed successfully, click on the job name and a Download URL will appear at the bottom of the panel. Click this URL to access the downloaded imagery file.



The 'Job Manager' panel has a title bar with the text 'Job Manager'. Below the title bar, there is a 'Remove' button and a version number '9.0.5.3963'. Below these is a table with three columns: 'Job Name', 'User Name', and 'Status'. The table contains one row with the values 'My Export', 'GIS User', and 'Completed OK'. Below the table is a section titled 'Selected Job'. It contains the following information: Job Name: My Export, Status: Completed OK, Download URL: <http://imagery.geodata.md.gov:8080/exportdir/My>, User name: GIS User, Log URL: <http://imagery.geodata.md.gov:8080/exportdir/My>, and a link 'Browse Archived Jobs'.

- b. **Via Email:** If an email address was submitted with the request, that email address will be notified once the download is complete. A link will be provided in the email with access to the downloaded imagery file.

**Note:** This is a public facing application. There is no way to prevent others from seeing submitted requests or downloading the results of submitted requests.

## ADDITIONAL RESOURCES

For more information the Maryland Statewide Imagery Program, including by-ups options, visit <http://imap.maryland.gov/Pages/imagery.aspx>. If you are interested in learning more about the upcoming 2016 project, please contact Lisa Lowe, Senior GIS Analyst with the Maryland Department of Information Technology, Geographic Information Office at [lisa.lowe@maryland.gov](mailto:lisa.lowe@maryland.gov).

For all other inquiries related to Maryland imagery, please contact the GIO Office at [service.desk@maryland.gov](mailto:service.desk@maryland.gov).